

Amendments to the Claims

Please amend Claims 1, 2 and 5-10 to read as follows.

1. (Currently Amended) An ink jet printing apparatus comprising print medium conveying means for conveying a print medium, scanning means for moving a print head, which ejects ink droplets, along a main scanning direction crossing a direction in which the print medium is conveyed, and printing control means for controlling an operation performed by the print head to eject droplets,

wherein said printing control means comprises:

first printing control means for allowing formation of test patterns used to adjust landing positions of ink droplets in the main scanning direction, the ink droplets ejected by the print head onto the print medium; and

second printing control means for ~~controlling the operation performed by the print head to eject ink droplets in the main scanning direction~~ setting second adjustment values on the basis of first landing position adjustment values for the ink droplets determined on the basis of the test patterns[[,]] and predetermined correction values corresponding to each of a plurality of areas divided along the conveying direction of the print medium, and controlling the operation performed by the print head to eject ink droplets in the main scanning direction on the basis of the second adjustment values.

~~wherein on the basis of a plurality of landing position adjustment values set in association with a plurality of areas in the conveying direction of the print medium, said second printing control means controls the operation of ejecting ink droplets in each area.~~

2. (Currently Amended) An ink jet printing apparatus comprising print medium conveying means for conveying a print medium, scanning means for moving a print head, which ejects ink droplets, along a main scanning direction crossing a direction in which the print medium is conveyed, and printing control means for controlling an operation performed by the print head to eject droplets,

wherein said print medium conveying means comprises at least a pair of rollers located upstream of an area printed by the print head,

wherein said printing control means comprises:

first printing control means for allowing formation of test patterns used to adjust landing positions of ink droplets in the main scanning direction, the ink droplets ejected by the print head onto the print medium; and

second printing control means for controlling the operation performed by said print head to eject ink droplets in the main scanning direction on the basis of landing position adjustment values for the ink droplets determined on the basis of the test patterns, and

wherein before a trailing edge of the print medium passes through said conveying means, said second printing control means performs an ink ejecting operation on the basis of a first landing position adjustment value, and after a trailing edge of the print medium passes through said conveying means, on the basis of a second landing position adjustment value determined on the basis of the first landing position adjustment value and a correction value, the second landing position adjustment value being different from said the first landing position adjustment value.

3. (Previously Presented) An ink jet printing apparatus comprising print medium conveying means for conveying a print medium, scanning means for moving a print head, which ejects ink droplets, along a main scanning direction crossing a direction in which the print medium is conveyed, and printing control means for controlling an operation performed by the print head to eject droplets,

wherein said print medium conveying means comprises at least a pair of rollers located upstream of an area printed by the print head,

wherein said printing control means comprises:

first printing control means for allowing formation of test patterns used to adjust landing positions of ink droplets in the main scanning direction, the ink droplets ejected by the print head onto the print medium; and

second printing control means for controlling the operation performed by the print head to eject ink droplets in the main scanning direction on the basis of landing position adjustment values for the ink droplets determined on the basis of the test patterns,

wherein said first printing control means allows to form a first test pattern before a trailing edge of the print medium passes through said print medium conveying means, and allows to form a second test pattern after the trailing edge of the print medium has passed through said pair of rollers, and

wherein before the trailing edge of the print medium passes through said print medium conveying means, said second printing control means performs an ink ejecting operation on the basis of a first landing position adjustment value determined from the first test pattern, and after the trailing edge of the print medium has passed through said pair of rollers, said second printing control means performs an ink ejecting operation on the basis of a second landing position adjustment value determined from the second test pattern.

4. (Original) An ink jet printing apparatus according to claim 2 or 3, wherein the second landing position adjustment value varies depending on the type of the print medium.

5. (Currently Amended) An ink jet printing apparatus comprising print medium conveying means for conveying a print medium, scanning means for moving a print head, which ejects ink droplets, along a main scanning direction crossing a direction in which the print medium is conveyed, and printing control means for controlling an operation performed by the print head to eject droplets,

wherein said printing control means comprises:

first printing control means for allowing formation of test patterns used to adjust landing positions of ink droplets in the main scanning direction, the ink droplets ejected by the print head onto the print medium;

detecting means for detecting a distance between a print element arranged surface of the print head and a surface of the print medium every time the print medium is conveyed;

acquiring means for acquiring landing position adjustment values to adjust landing positions of ink droplets in the main scanning direction for each scan of the print head in accordance with landing position adjustment values for the first ink droplets determined on the basis of the test patterns and the distance detected by said detecting means, and the test patterns; and

second printing control means for controlling the operation performed by the print head to eject ink droplets in the main scanning direction on the basis of the landing position adjustment values for the ink droplets acquired by said acquiring means, and

wherein on the basis of a plurality of landing position adjustment values set in association with a plurality of areas in the conveying direction of the print medium, said second printing control means controls the operation of ejecting ink droplets in each area.

6. (Currently Amended) An ink jet printing apparatus comprising print medium conveying means for conveying a print medium, scanning means for moving a print head, which ejects ink droplets, along a main scanning direction crossing a direction in which the print medium is conveyed, and printing control means for controlling an operation performed by the print head to eject droplets,

wherein said printing control means comprises:

first printing control means for allowing formation of test patterns used to adjust landing positions of ink droplets in the main scanning direction, the ink droplets ejected by the print head onto the print medium;

acquiring means for acquiring second landing position adjustment values used to adjust landing positions of ink droplets in the main scanning direction for each scan of the print head ~~in accordance with~~ on the basis of landing position adjustment values for first ink droplets determined on the basis of the test patterns and printing density in the conveying direction of the print medium, the ink droplets being ejected from the print head onto the print medium, and

wherein an operation performed by the print head to eject ink droplets in the main scanning direction is controlled on the basis of the second landing position adjustment values acquired by said acquiring means.

7. (Currently Amended) A printing control method for an ink jet printing apparatus comprising print medium conveying means for conveying a print medium and scanning means for moving a print head, which ejects ink droplets, along a main scanning direction crossing a direction in which the print medium is conveyed, the method comprising:

a first step of causing test patterns to be formed, the test patterns being used to adjust landing positions of ink droplets in the main scanning direction, the ink droplets being ejected from the print head onto the print medium; and

a second step of ~~controlling an operation performed by the print head to eject ink droplets in the main scanning direction,~~ setting a second adjustment landing position on the basis of first landing position adjustment values determined on the basis of the test patterns and predetermined correction values corresponding to each of a plurality of areas divided along the conveying direction of the print medium, and controlling an operation performed by the print head to eject ink droplets in the main scanning direction on the basis of the second landing position.

~~wherein in said second step, on the basis of a plurality of landing position adjustment values set corresponding to a plurality of areas in the conveying direction of the print medium, an operation of ejecting ink droplets in each of the areas is controlled.~~

8. (Currently Amended) An ink jet printing apparatus comprising conveying means for conveying a printing medium along a conveying direction, scanning means for reciprocally moving a print head, which ejects ink droplets along a main scanning direction crossing the conveying direction, printing control means for controlling an operation performed by the print head to eject droplets while the print head is reciprocally moved by said scanning means, said apparatus comprising:

registration means for adjusting an ink ejecting timing from the print head in forward scanning and backward scanning according to ~~an~~ a plurality of adjusting value values; and

control means for controlling said registration means so as to adjust the ink ejecting timing using the plurality of adjustment value values corresponding to the ~~position~~ positions of the printing medium conveyed by the conveying means in the conveying direction,

wherein the plurality of adjustment values are determined on the basis of a first adjustment value for adjusting landing positions of ink droplets in the main scanning direction and predetermined correction values corresponding to the positions in the conveying direction.



~~wherein said control means controls said registration means so that the adjustment value is used to adjust the ink ejecting timing out of a plurality of adjustment values corresponding to positions of the printing medium in the conveying direction.~~

9. (Currently Amended) An ink jet printing apparatus according to claim 8, wherein the conveying means comprises at least a pair of rollers which are placed at a ~~portion~~ position upstream of a recording position by the print head in the conveying direction, and said control means controls said registration means so as to use a different adjusting value depending on whether or not a trailing end of the printing medium conveyed is at a position upstream of the pair of rollers.

10. (Currently Amended) A printing control method for an ink jet printing apparatus comprising conveying means for conveying a printing medium along a conveying direction, scanning means for reciprocally moving a print head that ejects ink droplets along a main direction crossing the conveying direction, printing control means for controlling an operation performed by the print head to eject ink droplets while the ~~printing~~ print head is reciprocally moved by the scanning means, said printing control method comprising:

a first adjusting step of adjusting ink ejecting timings in forward scanning and backward scanning of the print head according to a first adjusting value when the print medium is in a first position in the conveying direction; and

a second adjusting step of adjusting ink ~~ejection~~ ejecting timings in forward scanning and backward scanning of the print head according to a second adjusting value which is set by applying a predetermined accumulated value to the first landing position and is different from the first adjusting value when the printing medium is in a second position downstream of the first position.

11. (Previously Presented) A printing control method for an ink jet printing apparatus according to claim 10, wherein the conveying means comprises a pair of rollers which are placed at a position upstream of a recording position by the print head in the conveying direction, the first adjusting step is performed when a trailing end of the printing medium to be conveyed by the conveying means is at a position upstream of the pair of rollers, and the second adjusting step is performed when a trailing end of the printing medium is at a position downstream of the pair of rollers.